

Flourishing And Internet Use: Perspective Taking As A Moderator

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Abstract: *The current research explored the impact of internet usage on flourishing along with the role of perspective taking as a moderator. The sample comprised of 200 participants collected online through convenience sampling technique. The age range of the sample was between 18-25 years ($M=21.54$, $SD=1.89$). Three scales were employed to carry out the research, namely Perspective Taking Scale of Interpersonal Reactivity Index (IRI; Davis, 1980), Flourishing Scale (Diener, 2009) and Internet Addiction Test (IAT; Young, 1998). Results revealed that internet usage negatively impacted flourishing, whereas, perspective taking moderated this relationship. The results suggest that excessive internet use results in lower flourishing and being exposed to media content may create more empathy and perspective taking for the person being watched which also reduces scores on flourishing. The results reveal that one should limit the time spent on internet and should focus on real life social interactions.*

Keywords: flourishing, perspective taking, internet

Introduction

In today's digitally connected world internet has become a part of one's routine life. Due to the easy accessibility and the swift learning of technologies, youth is becoming more a victim of technologies than other age groups. The excessive and uncontrolled internet use, known as internet addiction, posits concerns about its likely negative influence on psychological well-being (Kuss & Lopez-Fernandez, 2016; Young, 1998). Increased amount of online time results in social withdrawal, lessened emotional regulation, and interrupted daily life, factors that hinder optimal psychological development and life satisfaction (Tandon et al., 2021). Internet addiction refers to an unprecedented and unrestrained use of the internet that leads to impairment in various aspects of life, including academic, social, and emotional functioning (Young, 1998). It often manifests as compulsive behaviors, withdrawal symptoms, and a preoccupation with online activities, all of which can disrupt psychological well-being (Kuss & Lopez-Fernandez, 2016). It is also responsible for many of the adverse effects on social life (Griffiths, 1998).

In contrast, flourishing is a state of psychological wellness in which a person is thriving (Logan, Berman & Prescott, 2023). An individual shows highest level of mental health, by extending positive relationships with others as well as a positive self attitude (self-acceptance, life purpose, & personal growth; Diener et al., 2009). Keyes (2002) conducted a landmark research on flourishing suggesting

both the psychological and social factors involved in it. Diener et al (2009) later developed a scale to measure flourishing encompassing meaning in life, self esteem, success in relationships and optimism. Comprehending the interplay between internet addiction and flourishing is essential as the post-pandemic world has increased the online dependency. An excessive use of internet may interfere with real-life relationships with meaningful interactions which in turn exert negative impact on flourishing (Tandon et al., 2021).

Zewude et al. (2024) studied the impact of internet addiction on mental health and psychological capital and found that internet addiction had a negative impact on mental health, whereas, psychological capital fully mediated between the two constructs. Chan et al. (2023) studied Chinese university students and found that internet addiction was having a negative correlation with psychological strengths like flourishing and emotional competence, suggesting that internet use hampers the protective factors which can keep them from negative affects of internet use.

It is important to study traits like perspective-taking that may show whether it buffers or exacerbate this relationship (Li et al., 2022). Perspective taking is a cognitive component of empathy that means an ability to understand and take the viewpoints of others (Davis, 1983). Perspective taking proves to enhance emotional regulation and healthier social interactions, which may help lessen the adverse effects of internet addiction on flourishing. People high on perspective taking manifest lesser number of social conflicts with a better ability to handle emotional stress, which may keep one from the negative effects of internet addiction. Recent research suggests that perspective taking can moderate the impact of negative behaviors on well-being. Zhang et al. (2024) studied diversity and flourishing among college students and found those scoring high on diversity (interest to know diverse people) also scored high on flourishing. This means understanding the perspective of another person may reduce aggression, social isolation, and even compulsive digital behavior (Li et al., 2022). In this context, individuals high in perspective taking may experience less reduction in flourishing even if they exhibit signs of internet addiction.

Rationale of the study

Due to the worldwide rise in internet use, its psychological implications need to be studied in the underexplored cultures specifically in areas like Peshawar, Khyber Pakhtunkhwa (KP). KP is witnessing a swift digitization in the presence of traditional social values with little mental health awareness. Like every society, the youth here is attracted towards the digital world for the sake of education, entertainment, and social interaction. The unprecedented usage of internet in a collectivist culture may result in emotional isolation, family strain, and reduced social functioning; elements that can hamper flourishing. Additionally, awareness regarding mental health is limited in KP with a discouraging attitude towards topics like emotional well-being. This fact makes it crucial to identify factors (such as internet use and perspective taking) that can have an impact on positive development in youth. By examining how these psychological interactions, the present study fills a literature gap of studying these variables in a Pashtun context among the youth undergoing fast technological change while residing in a deeply rooted traditional community.

Objectives

1. To study the relationship between internet addiction and flourishing.
2. To evaluate the role of perspective taking in moderating the relationship between internet addiction and flourishing.
3. To investigate the correlation between fantasy, empathy and flourishing.

Hypotheses

1. Internet addiction will have negative impact on flourishing
2. Perspective taking will moderate the relationship between internet addiction and flourishing
3. Empathy and fantasy will be positively correlated with flourishing

Method

Sample

Data was collected from 200 individuals using a convenience sampling technique. The participants were between 18 and 25 years old ($M=21.54$, $SD=1.89$). There were 100 males and 100 females, and most of them were students of University of Peshawar.

Instruments

Interpersonal Reactivity Index (IRI)

The Interpersonal Reactivity Index (IRI; Davis, 1980) is a 28 items tool that measures different aspects of empathy. The scale is divided into four subscales: Perspective Taking, Fantasy, Empathic Concern, and Personal Distress, with 7 items in each subscale. The items are rated using a 5-point Likert scale ranging from 1 to 5. For the present study only the *perspective taking* scale of IRI was used to measure the construct. Reliability indices for IRI shown high Cronbach's alpha values (0.70 to 0.78) for different subscales.

Flourishing Scale (FS)

The Flourishing Scale was (Diener, 2009) used to measure an individual's overall psychological well-being and positive functioning. It consists of 8 items that assess dimensions like meaning in life, relationships, self-esteem, optimism, and purpose. This scale comprise of 7-point Likert format, with response options between 1 to 7. Higher well-being, means flourishing is shown on the scale through high scores. The internal consistency of the scale is 0.87, i.e., high reliability.

Internet Addiction Test (IAT)

The Internet Addiction Test (IAT; Young, 1998) measures problematic internet use or internet dependency. The scale is composed of 20 statements, with a Likert format. Each statement is rated on 6 points, ranging between 0 to 5. The higher the score, the more internet addiction is manifested. The IAT's reliability is high ($r=0.90$).

Procedure

Data for the current research was collected online through the creation of google form comprising the demographic sheet and the items of three scales: the Interpersonal Reactivity Index (IRI), the Flourishing Scale (FS), and the Internet Addiction Test (IAT). The form was then shared on social media platforms, specifically whatsapp groups of family, relatives, class and department fellows. Participants were informed that taking part in the study was voluntary and their responses would stay private and only be used for research purposes. They were allowed to fill out the form at their own pace. After that they were asked to forward it to their friends as well. After collecting all the responses, the data was entered into SPSS software. Data was then analyzed using SPSS and the PROCESS macro for moderation analysis, and the results are presented in the next section.

Results

Table 1

Psychometric Properties of IAT, FS and IRI Scales Used in Research

Scales	No. of items	M	SD	Range	Cronbach's α
IAT total score	20	41.98	15.88	0-92	.88

FS total score	08	41.55	9.28	9-56	.85
PT total score	07	13.35	4.95	0-28	.62

Note. IAT=Internet addiction test, FS=Flourishing Scale, PT=Perspective Taking; M= Mean; SD= Standard Deviation.

Table 2 shows the Cronbach's alpha values of the study scales which reflect the internal consistency of each scale. The values of FS and IAT are high as they are greater than 0.70, whereas, the reliability of perspective taking scale is moderate ($r=.62$).

Table 2

Simple Linear Regression Predicting Flourishing from Internet Addiction

Variable	B	SE B	B	T	P
Constant	51.04	1.720		29.675	.000
Internet Addiction Test	-0.23	.038	-3.86	-5.895	.000
R ²	.149				

Note. N = 200. DV = Flourishing (total score), IV = Internet Addiction (total score). B = unstandardized regression coefficient; β = standardized regression coefficient ($\beta = -0.39$) SE B = standard error of B, $R^2 = .15$, $F(1, 198) = 34.75$, $p < .001$.

This means that 1 unit increase in internet addiction is associated with -.23 decrease in flourishing. The model explains approximately 15% of the variance in flourishing due to internet addiction.

Table 3

Moderation of Perspective Taking Between Internet Addiction and Flourishing

Variables	Estimate	SE	LL	UL	P
Constant	40.7336	4.2322	32.387	49.08	.000
Total IAT	-.0474	.0903	-.2255	.1308	.601
Total PT	.7272	.2711	.1925	1.262	.008
Internet addiction x Perspective taking	-.0123	.0053	-.0229	-.0018	.022
R ²	.1795				
AdjR ²	.0225				

Note. Total IAT (total internet addiction test), Total PT (total perspective taking) $p=.000$ is significant.

Perspective taking significantly predicts higher flourishing ($p = .0079$), however, internet addiction alone does not significantly predict flourishing ($p = .6005$). The interaction between internet addiction and perspective taking is significant ($p = .0216$), indicating that perspective taking moderates the relationship between internet addiction and flourishing. The model explains a modest amount of variance in flourishing ($R^2 = .1795$; Adj $R^2 = .0225$).

Discussion

This study explored the relationships between internet addiction, flourishing, and perspective taking.

The rise in internet usage globally has raised concerns about its potential negative effects on individuals' psychological well-being, it is important to examine how such addictive behaviors influence overall life satisfaction. The research aimed to test the effects of internet addiction on flourishing. Perspective taking is a crucial component of well-being and understanding its role in enhancing or hindering flourishing is important. Therefore, this research aimed to investigate the impact of internet addiction on flourishing, and the moderating effect of perspective taking on this relationship.

The first hypothesis tested the negative impact of internet addiction and flourishing, predicting that higher levels of internet addiction would lead to lower levels of flourishing.

The results confirmed the hypothesis as the F Change ($= 34.751, p < .001$) shows that the regression model is statistically significant, indicating that internet addiction significantly predicts flourishing. The value of $R^2 = .149$ explained 14.9% of the variance in flourishing by internet addiction. Although this is statistically significant, it is a small amount of variance explained, suggesting that other factors not included in the model may also influence flourishing.

According to coefficients Internet Addiction ($B = -0.226, p < .001$), exerted a negative influence on flourishing (-0.226). This means that for every one-unit increase in the total score of internet addiction, the flourishing score decreases by 0.226 points. The negative sign indicates that internet addiction is associated with lower flourishing.

The result of the present study aligns with earlier research, such as Kuss and Griffiths (2017), who found that problematic internet use is associated with poor mental health outcomes, including lower levels of life satisfaction and well-being. Similarly, Zeb et al. (2023) also reported higher amount of anxiety among internet addicted individuals than non addicted. Meerkerk, Van den Eijnden, and Garretsen (2006) also found that internet addiction is linked to lower levels of well-being and increased psychological distress. Moreover, Kim et al. (2017) reported that individuals with high levels of internet addiction tend to experience poor mental health outcomes, including lower life satisfaction, anxiety, and depression, which may contribute to a decrease in flourishing.

The second hypothesis proposed that perspective-taking would moderate the relationship between internet addiction and flourishing, such that high perspective-taking would buffer the negative effect of internet addiction on flourishing. The results of the moderation analysis using PROCESS Macro (Model 1) revealed that perspective-taking significantly moderated the relationship between internet addiction and flourishing ($B = -0.012, p = .022$). However, the direction of this moderation effect was contrary to expectations. Specifically, the negative relationship between internet addiction and flourishing became stronger at higher levels of perspective-taking. At low levels of perspective-taking, internet addiction was negatively associated with flourishing ($B = -0.171, p = .001$), but this relationship was even stronger at moderate ($B = -0.220, p < .001$) and high levels ($B = -0.282, p < .001$) of perspective-taking. This indicates that individuals with higher perspective-taking tendencies experienced a greater decline in flourishing as their internet addiction increased.

Previous researches have also shown that although perspective-taking generally ensures positive social outcomes, but in digital environments, it may occasionally lead to empathic distress, especially in the face of overwhelming online content (Pfafftheicher & Böhm, 2021). This manifest how flourishing declines more for individuals who score high on perspective-taking when internet addiction is also high. Being counterintuitive, this result aligns with emerging research suggesting that in digital environments extreme perspective-taking may not always bear positive psychological outcomes. Decety and Lamm (2006) explained the mechanism by suggesting that high perspective-takers may be more susceptible to empathic distress when they witness overwhelming or negative stimuli on social media platforms. In the same line, Vossen and Valkenburg (2016) in a longitudinal study revealed that adolescents with high perspective-taking abilities with heavy use of social media faced problems in emotion regulation, which resulted in reduction in mental well-being over time. This highlights that empathy-related

qualities, being socially beneficial, may turn burdensome while facing high emotional or cognitive load, specifically created by internet overuse. Pfattheicher and Böhm (2021) suggested that when emotional regulation strategies are not strong, perspective-taking people can internalize others' distress, which can give rise to further stress, anxiety, and social fatigue- factors that hampers flourishing.

From a cultural standpoint, in Peshawar, Khyber Pakhtunkhwa, where social values are deeply rooted in collectivism, high perspective-takers might experience greater emotional entanglement and moral responsibility when engaging online, especially in comparison-heavy or emotionally charged digital spaces. This could potentially intensify the emotional cost of internet addiction in this specific cultural setting, contrary to its protective role observed in more individualistic cultures (Konrath, O'Brien, & Hsing, 2011).

Thus, while moderation was confirmed, the findings highlight a complex interplay between digital behavior and socio-emotional traits like perspective-taking. The results underscore the importance of addressing emotional regulation skills in interventions aimed at mitigating the negative impact of internet addiction, particularly in culturally collectivistic populations.

These findings suggest that interventions should not only target reducing internet addiction, but also consider the psychological traits such as empathy and perspective-taking that may interact with internet use to influence well-being. Future research could further explore whether training in emotional regulation might help highly empathic individuals better manage their emotional responses to digital content.

Limitations

The sample specificity, i.e., data collected only Peshawar, KPK limits the generalizability of the results.

The use of self-report scales may include social desirability bias.

Cross-sectional does not prove causality; longitudinal designs would be more informative.

The second hypothesis revealed a significant but contrary moderation effect, which suggests possible unmeasured third variables (e.g., emotional sensitivity or cultural pressure) influencing the outcome.

Implications

The finding that internet addiction significantly and negatively impacts flourishing implies that digital health education and awareness campaigns are essential, especially among youth, as well as the need for psychological interventions focusing on healthy technology use to promote well-being among them. Educational institutions should integrate digital hygiene and its impact on mental health awareness into student support services. Interestingly, the significant moderation effect shows that emotional-cognitive traits like perspective-taking can shape the intensity of digital behavior outcomes, however, the unexpected negative direction reveals that higher perspective-taking may amplify distress in the context of internet addiction. This suggests that mental health programs should cultivate perspective taking along with emotional regulation skills.

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